

We claim:

1. A nozzle exit closure system (100) for rockets comprising:

5 a circular frame assembly (1) having plurality of spokes (4) configuration; at least eight spoke;

a nozzle divergent (2) with a ring (3) welded thereon; said nozzle divergent ring (3) is connected to said circular frame assembly (1) through a plurality of spring (11) loaded latches (5);

characterized in that

10 said plurality of latches (5) are connected by a steel wire rope (6) pre-tensioned by a turnbuckle arrangement (400) and is released by cutting the wire rope using a pyro wire rope cutter .

2. The nozzle exit closure as claimed in claim 1, wherein said wire rope (6) is pre-tensioned by said turnbuckle arrangement (400).

- 15 3. The nozzle exit closure as claimed in claim 1, wherein said closure consists of a composite thermal blanket (8) made of multiple layers of silica fabric, heatlab and nitrile rubber sheet supported by said circular frame (1).

- 20 4. The nozzle exit closure as claimed in claim 1, wherein said closure includes a loop with rope (6) passing over said spring loaded latches (5) which is placed in a groove of said nozzle divergent (2).

5. The nozzle exit closure as claimed in claim 1, wherein said closure includes a load cell (9) which is located near said turnbuckle (400) for monitoring the tension of said wire rope (6).

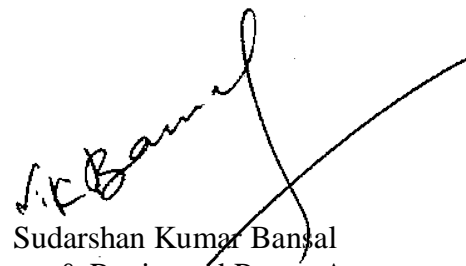
- 25 6. The nozzle exit closure as claimed in claim 1, wherein said closure comprises two wire rope cutters (7) provided side by side for redundancy in function.

7. The nozzle exit closure as claimed in claim 1, wherein said closure includes a hinge

arrangement (10) which is provided for said latches (5) for adjusting to local deformation of said nozzle.

8. The nozzle exit closure as claimed in claim 1, wherein said nozzle exit closure is released by cutting the wire rope using said pyro wire rope cutter.
9. The nozzle exit closure as claimed in claim 1, wherein said latches (5) are provided with venting for limiting the differential pressure.

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